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10/518,542	05/24/2005	Hartmut Grund	263099US0PCT	2968
22850	7590	07/07/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
JACOBSON, MICHELE LYNN				
ART UNIT		PAPER NUMBER		
1794				
NOTIFICATION DATE		DELIVERY MODE		
07/07/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/518,542

**Applicant(s)**

GRUND ET AL.

**Examiner**

MICHELE JACOBSON

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

**DETAILED ACTION*****Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-11, 13 and 16-30 and 32-35 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-25 of copending Application No. 10/518536. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scopes of the conflicting claims both encompass a 5 layer tubular film comprised of 4 layers of polyolefin or modified polyolefin with an outer layer of polyamide. The specific polyolefins and polyamides recited in both applications are the same.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-11, 13, 16-30 and 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grund U.S. Patent No. 5,612,104 (hereafter referred to as Grund).

5. Grund teaches a five-layer film comprising a 1<sup>st</sup> and 5<sup>th</sup> layer of polyamide, a 3<sup>rd</sup> core layer of polyolefin and a 2<sup>nd</sup> and 4<sup>th</sup> adhesive layer between the polyolefin core layer and the polyamide layers. Useful polyamides for the 1<sup>st</sup> and 5<sup>th</sup> layer are recited to be at least one aliphatic polyamide and/or at least one aliphatic copolyamide and/or at least one partially aromatic polyamide and/or at least one partially aromatic copolyamide. (Col. 5, lines 3-5) Specifically, the homopolyamides and/or copolyamides are recited to be produced from monomers selected from the group of caprolactam, laurinlactam (Col. 5, line 32),  $\omega$ -aminoundecanoic acid (Col. 5, lines 29-30), adipic acid, azelaic acid, sebacic acid, decanedicarboxylic acid, dodecanedicarboxylic acid (Col. 5, lines 27-29), terephthalic acid, isophthalic acid (Col. 5 line 67-Col. 6 line 1), tetramethylenediamine, pentamethylenediamine, hexamethylenediamine, octamethylenediamine (Col. 5, lines 23-25), and xylylenediamine (Col. 5, line 53). The thickness of the inner polyamide layer is recited to be from 1-8  $\mu$ m and the outer polyamide layer thickness from 10-40  $\mu$ m. (Col. 4, lines 50 and 67)

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6. Suitable polymers for the polyolefin core layer are recited to be homopolymers of ethylene or propylene or copolymers of linear  $\alpha$ -olefins having 2 to 8 C-atoms, or mixtures of these homopolymers or copolymers with one another. Particularly suitable are polyolefins having melting points of above 120° C., e.g., LLDPE, HDPE, polypropylene homopolymers, as well as polypropylene block copolymers and polypropylene random-copolymers. (Col. 6, lines 12-19) The thickness of the polyolefin core layer is recited to be from 10-30  $\mu\text{m}$ . (Col. 6, line 20)

7. Suitable polyolefins for 2<sup>nd</sup> and 4<sup>th</sup> adhesive layers are recited to be modified homo- or copolymers of ethylene and/or propylene, and optionally of further linear  $\alpha$ -olefins with 3 to 8 C-atoms having grafted thereon monomers of the group consisting of  $\alpha,\beta$ -unsaturated dicarboxylic acids, such as maleic acid, fumaric acid, itaconic acid or their acid anhydrides, acid esters, acid amides or acid imides. Additionally suitable are copolymers of ethylene or propylene and optionally of further linear  $\alpha$ -olefins with 3 to 8 C-atoms having  $\alpha,\beta$ -unsaturated carboxylic acids, such as acrylic acid, methacrylic acid and/or their metallic salts and/or their alkyl esters, or adequate graft polymers of the mentioned monomers on polyolefins. The thickness of the 2<sup>nd</sup> and 4<sup>th</sup> polyolefin adhesive layers is recited to be between 4-8  $\mu\text{m}$ . (Col. 6, line 30)

8. The film of the invention is prepared by coextrusion and subsequent biaxial stretching and thermosetting. (Col. 6, lines 55-56) Depending on the temperatures during thermosetting, a shrinkable or non-shrinkable film may be manufactured. (Col. 7, lines 17-19) The thickness of the film of the invention is recited to be from 30-90  $\mu\text{m}$ . (Claim 22) The film of the invention is recited to be useful for packaging sausage.

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9. Grund does recite a polyolefin film for the inner layer of the tubular film, or for an additional interior layer.

10. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have replaced the interior 1<sup>st</sup> polyamide layer of Grund with a layer of polyolefin selected from the compositions recited to comprise the 2<sup>nd</sup> and 4<sup>th</sup> adhesive layers. Polyolefin layers are well known for their heat sealing properties in the packaging art (see for example US 5021510 or US 5759648) and replacing the polyamide layer with a polyolefin layer would have been advantageous since a polyolefin layer would be cheaper and not require a metal clamp or clip for sealing. This obvious modification would have produced the invention as claimed in claims 1-3, 5, 7-11, 13, 19-27, 33 and 34. It is the examiners opinion that the polyamide layer in the modified invention of Grund would function as a gas-barrier layer and provide protection against mechanical damage. As such the modified invention of Grund meets the limitations set forth in claim 28.

11. The superior heat sealing properties of polyolefin are well known and the technique of lap sealing is well known to form tubular articles. As such, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have disposed an additional polyolefin layer selected from the compositions recited to comprise the 2<sup>nd</sup> and 4<sup>th</sup> adhesive layers of Grund as a heat sealing layer on the exterior polyamide layer recited by Grund in order to increase the seal seam strength between the interior and exterior layers of the laminate in a lap sealing configuration. An additional polyolefin layer on the exterior of the laminate would have also increased the

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structural integrity of the laminate. This obvious modification of Grund would have produced the invention as claimed in claims 29 and 30

12. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have disposed an additional polyolefin layer selected from the same compositions recited to comprise the 2<sup>nd</sup> and 4<sup>th</sup> adhesive layers as an additional layer between the 4<sup>th</sup> layer and the outside 5<sup>th</sup> polyamide layer. An additional layer of polyolefin would have been advantageous in order to increase the structural integrity of the laminate. The disposal of an additional structural layer in the modified invention of Grund would have produced the invention as claimed in claim 16-18 and 32.

13. The limitations recited in claims 1-11, 13, 16-30 and 32-35 are obvious variations/improvements to the invention recited by Grund. The use of a metallocene catalyst to produce the polyethylene disposed in the inner layer would have also been obvious to one of ordinary skill in the art at the time the invention was made since metallocene catalyzed polyethylenes exhibit lower melting temperatures than Zeigler-Natta catalyzed polymers. This property is advantageous for heat sealing applications. The production of the modified invention of Grund using metallocene catalyzed polyethylene would have produced the invention as claimed in claim 4.

14. The limitations of melting point, density and melt flow index recited in claim 6 are not specifically enumerated by Grund but are properties that would have been obvious to optimize to one of ordinary skill in the art at the time the invention was made.

15. The methods of packaging meat products recited in claims 22 and 24 would have been obvious to one having ordinary skill in the art at the time the invention was

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made who desired to package meat especially since the tubular film of Grund is recited to be useful for packaging meat. It would have also been obvious to one of ordinary skill in the art at the time the invention was made to have produced a bag, food wrap or food package since the tubular film of the invention is specifically recited to be useful for packaging which would have produced the invention as claimed in claims 23 and 26-27. Since the laminate of Grund is specifically recited to be useful for packaging meat, it would have also been obvious to one having ordinary skill in the art at the time the invention was made to try packaging bony meat products with the film produced which would have produced the invention as claimed in claim 35.

16. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grund U.S. Patent No. 5,612,104 as applied above and Idlas U.S. Patent No. 6,869,686 (hereafter referred to as Idlas).

17. Grund is silent regarding a layer of polyvinylidene copolymer constituted of at least 50% vinylidene chloride and vinyl chloride and/or methacrylate monomers.

18. Idlas teaches a polyvinylidene copolymer layer for a packaging laminate to be used for meat comprising at least 80% by weight of at least one copolymer of vinylidene chloride with from 2-20 wt. % (based on said copolymer) of vinyl chloride or methyl acrylate. (Col. 4, lines 48-51)

19. The motivation to use the barrier layer of Idlas with the laminate of Grund would have been as disclosed in Idlas that polyvinylidene chloride copolymer, such as Saran, and modified Saran containing methyl acrylate polymer units are frequently used in



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multilayer films for packaging oxygen and/or moisture sensitive foods e.g. processed pork or fresh red meat. (Col. 1, lines 21-28)

20. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have added a polyvinylidene chloride copolymer as a 6<sup>th</sup> layer to the laminate of Grund which would have produced the invention as claimed in claim 12.

21. Claims 14 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grund U.S. Patent No. 5,612,104 as applied above, Forloni et al. U.S. Patent No. 5,466,498 (hereafter referred to as Forloni) and Idlas U.S. Patent No. 6,869,686.

22. Grund is silent regarding a layer of ethylene vinyl alcohol copolymer with an ethylene content between 27-48 mol %.

23. Forloni teaches an ethylene vinyl alcohol barrier layer preferably comprised of 44% by weight of ethylene.

24. The motivation to combine the barrier layer of Forloni with the laminate of Grund would have been as taught by Idlas ethylene vinyl alcohol copolymer layers are frequently used in multilayer films for packaging oxygen and/or moisture sensitive foods e.g. processed pork or fresh red meat. (Col. 1, lines 21-28)

25. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have added an ethylene vinyl alcohol copolymer as a 6<sup>th</sup> layer to the laminate of Grund which would have produced the invention as claimed in claims 14 and 34.

26. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grund U.S. Patent No. 5,612,104 as applied above and Shah U.S. Patent No. 4,724,185 (hereafter referred to as Shah).

27. Grund is silent regarding a layer of a blend ethylene vinyl alcohol copolymer and polyamide.

28. Shah teaches a barrier layer for use in food packaging that is a blend of ethylene vinyl alcohol copolymer and polyamide. (Col. 4, lines 40-42)

29. The motivation to combine the barrier layer of Shah with the laminate of Grund would have been as recited by Shah to provide a layer with good oxygen barrier properties over a wide range of moisture conditions. (Col. 2, lines 51-54)

30. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have added an ethylene vinyl alcohol copolymer/polyamide blend layer as a 6<sup>th</sup> layer to the laminate of Grund which would have produced the invention as claimed in claim 15.

### ***Response to Arguments***

1. Applicant's arguments filed 5/12/08 have been fully considered but they are not persuasive. Applicants have argued on page 11 of the remarks filed that the instant invention addresses a long-felt and previously unsatisfied need in the food packaging art. However, evidence of this need is not presented. As stated in MPEP 716.01 (a) [R-2] "The arguments of counsel cannot take the place of evidence in the record. In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). Examples of attorney

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statements which are not evidence and which must be supported by an appropriate affidavit or declaration include statements regarding unexpected results, commercial success, solution of a long-felt need, inoperability of the prior art, invention before the date of the reference, and allegations that the author(s) of the prior art derived the disclosed subject matter from the applicant." Applicant has presented no factual evidence to rebut the *prima facie* case of obviousness set forth in the previous rejection by demonstration of meeting a long-felt and previously unsatisfied need in the food packaging art. As such, applicants' arguments on these grounds are not found persuasive.

2. Applicants' comparison of the instant invention with that of Grund in order to show unexpected results is not germane because the properties described by applicant to be unexpected in the instant invention are not reflected in the claims. Applicant has presented to no arguments to refute that the obvious modification of Grund motivated by the desire to provide superior heat sealing capabilities to the invention of Grund would not have produced the invention as claimed. Additionally, the evidence presented by applicant to compare the invention of Grund with the instant application recites seal seam strengths, the very property that would be expected to be improved by the modification of Grund to include a superior sealing polyolefin layer.

3. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., bony meat puncture resistance) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification

are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Applicants have asserted that the patentability of this invention hinges upon its superior resistance to puncture by bony meat products, but no evidence has been presented comparing the resistance to puncture of the instant invention to the invention of Grund. Furthermore, resistance to puncture by bony meat products is not reflected anywhere in the claims and is therefore not germane. As such applicants' arguments regarding US 6004599 and AU 199938013 are also not germane to the patentability of the pending claims.

4. Applicants assert on page 14 of the remarks that the invention disclosed by Idlas is substantially different from the instant invention and that there is not disclosure that the invention recited by Idlas would provide improved resistance to puncture by bony meat products. For the same reasons stated above, this argument is not germane. Applicant also asserts that the invention of Idlas requires very high heat sealing temperatures, which is another parameter that is not reflected in the claims of the instant application and is therefore not germane.

5. Applicant seeks to disqualify Vroomas because it does not address the problems of packaging bony meat products, however, as stated above, the puncture resistance of the laminate claimed is not reflected in the claims. While applicant has added a claim in the amendment submitted 5/12/08 to include a bony meat products within a package produced from the claimed laminate, applicant has failed to present any reasons or evidence that one of ordinary skill in the art would not have been motivated to try

packaging bony meats with the modified invention of Grund since it was specifically disclosed to be useful for meat.

6. Applicant states on page 13 of the remarks that they reserve the right to file a Terminal Disclaimer later, if necessary. As such the double patenting rejection over copending application number 10/518536 is maintained.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHELE JACOBSON whose telephone number is (571)272-8905. The examiner can normally be reached on Monday-Thursday 8:30 AM-7 PM EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michele L. Jacobson  
Examiner /M. J./  
Art Unit 1794

/Carol Chaney/  
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